

## GUJARAT TECHNOLOGICAL UNIVERSITY

**B.PHARM. - SEMESTER- V • EXAMINATION – SUMMER-2016**

**Subject Code: 250006**

**Date: 12/05/2016**

**Subject Name: Pharmacognosy-IV**

**Time: 2:30 PM to 5:30 PM**

**Total Marks: 80**

**Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Discuss life cycle of Ergot **06**  
(b) Give specific chemical test and commercial importance of ergot alkaloids. **05**  
(c) Give source, cultivation and collection method for opium alkaloids. **05**
- Q.2** (a) Define alkaloids. Classify alkaloids with suitable examples in each class. **06**  
(b) Write a note on nux-vomica and its adulterants. **05**  
(c) Describe chemistry and pharmacological activity of reserpine. **05**
- Q.3** (a) Discuss the Shikimic acid pathway in detail. **06**  
(b) Write brief note on Tracer-technique **05**  
(c) Give the importance of the study of biogenetic pathway for secondary metabolites. **05**
- Q.4** (a) Give pharmacognosy of Coffee and describe procedure for isolation of caffeine **06**  
(b) Explain stereo-isomerism with natural product examples. **05**  
(c) What are the Purins derivatives? Explain with example. **05**
- Q.5** (a) Name the precursors for biogenesis of indole alkaloids and write the biogenetic pathway for synthesis of reserpine. **06**  
(b) Write a note on Vinca alkaloids and their semi-synthetic derivatives. **05**  
(c) Give different varieties of Tobacco in India. Explain method of cultivation of it. **05**
- Q. 6** (a) Enlist Tropane Alkaloids and write Pharmacognostic profile of any one drug contain it **06**  
(b) Describe pharmacognosy of drug having anti-malarial activity **05**  
(c) Write a brief note on Indian Ephedra **05**
- Q.7** (a) Differentiate between two species of alkaloidal amine containing drug used as bronchodilator. **06**  
(b) Differentiate between *Hyoscyamus niger* and *Hyoscyamus muticus*. **05**  
(c) Explain the morphology and microscopy of vasaka leaf and draw well labelled diagrams. **05**

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